DOCUMENT RESUME

ED 391 462 IR 017 609

AUTHOR O'Connor, Bridget N., Ed.
TITLE Organizational and End-User Information Systems Model Curriculum.
INSTITUTION Office Systems Research Association, Springfield, MO.
PUB DATE 96
NOTE 39p.; Cover title is "Organizational & End-User Information Systems: Curriculum Model for Undergraduate Education in Information Technology."
PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Course Descriptions; Course Objectives; *Curriculum Design; Curriculum Development; *Information Systems; *Job Development; Learning Theories; Microcomputers; Models; Needs Assessment; Organizational Change; Performance Technology; Postsecondary Education; Users (Information); Work Environment
IDENTIFIERS Curriculum Councils; *Multimedia Information Systems

ABSTRACT

One of the goals of the Office Systems Research Association (OSRA) is to ascertain the competencies needed by an information systems professional charged with organizational and personal performance technologies. This model curriculum, a major update of OSRA's 1986 Model Curriculum, emphasizes the technical aspects of multimedia desktop information systems. Crossing into behavioral science domains like job redesign, planned organizational change, and adult learning theory, the model also examines organizational and individual factors that are vital to the success of any new system. The curriculum is particularly geared for the end-user, or the person who actually uses these systems in daily work activities, who is increasingly playing a variety of roles in needs assessment, design, implementation, and evaluation. The model presents suggested designs for 11 separate courses, and each outline contains: (1) a course description; (2) a list of course outcomes, or abilities that a graduate of the course should be expected to have; (3) a course approach, or what kinds of class presentations or assignments might best accomplish course objectives; (4) course content, including a recommended percentage of the entire course that each topic should take up and a skill level that learners will need to undertake each topic; and (5) resources, often books, but also including journals and even agencies. (BEW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 391 462

Organizational & End-user Information Systems

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- ☐ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Curriculum Model for Undergraduate Education in Information Technology

Presented by

OSRA

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Heidi Perreault

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

IR017609

THE OFFICE SYSTEMS RESEARCH ASSOCIATION

ORGANIZATIONAL AND END-USER INFORMATION SYSTEMS MODEL CURRICULUM

Edited by

Bridget N. O'Connor
New York University

Prepared by the OSRA Curriculum Revision Group

Copyright 1996, Office Systems Research Association. Copying without fee is permitted provided the copies are not made or distributed for direct commercial advantage, and credit to the source is given. For permission to republish write to Heidi R. Perreault, OSRA, Southwest Missouri State University, 901 South National Avenue, Springfield, MO 65804-0089. To copy otherwise requires a special fee and/or specific permission.

THE OFFICE SYSTEMS RESEARCH ASSOCIATION
ORGANIZATIONAL AND END-USER INFORMATION SYSTEMS

MODEL CURRICULUM

Bridget N. O'Connor
New York University
Editor

Prepared by the OSRA Curriculum Revision Group:

Margaretta Judith Johnson Caouette, Pace University
Donna J. Cochrane, Bloomsburg University
Roger Deveau, University of Massachusetts, Dartmouth
Robert E. Fidoten, REF Associates
C. Steven Hunt, Tennessee State University
Charles M. Lutz, Utah State University
Duane Moses, Southwest Missouri State University
Bridget N. O'Connor, New York University (Chair)
Sarah Dorando O'Donnell, Bellcore
Charles M. Ray, Ball State University
Elizabeth A. Regan, MassMutual Life Insurance Company
Susan Rehwaldt, Southern Illinois University

Representing ACM Special Interest Group/Office Information Systems:

Dirk E. Mahling, University of Pittsburgh

Representing the National Association for Business Teacher Education:

Michael Bronner, New York University
Marcia James, University of Wisconsin, Whitewater

Office Systems Research Association
Heidi Perreault, Executive Director
Southwest Missouri State University
901 S. National Avenue
Springfield, MO 65804-0089
(417) 836-5616
fax (417) 836-6637

Editor's Comments

This model curriculum in organizational and end-user information systems underscores the notion that information systems at the desktop level are crucial to support organizational goals as well as bolster and sustain individual employees' needs to do their jobs well and grow in their careers. It is intended to bring the impact of high-level talk about business reengineering to the practical level of implementation at the desktop, where it counts most. Increasingly, the end-user, the individual who actually uses systems in daily work activities, plays a variety of roles in needs assessment, design, implementation, and evaluation; and this has resulted in a need for a new breed of information systems (I/S) professional.

The I/S professional who is working in such end-user empowered organizations is finding traditional systems development procedures less than optimum. He or she is learning that "there's more than one best way" to do almost everything, and appropriate choices in hardware, software, data communications, and the like, are complex and depend in large measure on factors outside traditional data processing boundaries, crossing into behavioral science domains such as job redesign, planned organizational change, and adult learning theory. Therefore, making sure that the *right* system is implemented at the *right* time for the *right* people in the *right* priority order involves a knowledge and skill toolkit beyond (but including!) technical expertise.

The Office Systems Research Association (OSRA) has again taken the lead in ascertaining the competencies that an information systems professional charged with organizational and personal performance technologies needs to know. This model curriculum, a major update of OSRA's 1986 Model Curriculum, breaks new ground by emphasizing the technical aspects of multimedia desktop information systems along with organizational and individual factors that are vital to the success of any new system. Today's OEIS professional is a systems developer, troubleshooter, change agent, trainer, systems evaluator, and savvy business person. The curriculum model that follows is designed to challenge our students to understand their dynamic role from both an organizational viewpoint and the perspectives and needs of the individuals they support.

On a personal note, I've never worked with a more devoted group of content-matter experts. We (the Curriculum Revision Group) worked enthusiastically to develop a flexible, workable curriculum model. We met in Kansas City and Las Vegas at OSRA Conferences. We met here at New York University and used both traditional meeting management tools as well as Ventana Corporation's GroupSystems. For the past two years we have put miles on our word processing and graphics programs, and we have faxed, emailed, listserved, and videoconferenced. We like to think we practiced what we are preaching here. We believe the curriculum that follows is the result of true group collaboration and its innovativeness comes through to the academic community, our students, and the business communities we serve.

For more information, contact the OSRA Headquarters. Look, too, for the special curriculum edition of the *Office Systems Research Journal*, scheduled for publication in the Fall of 1995.

Bridget N. O'Connor
Chair, OSRA Curriculum Revision Group

TABLE OF CONTENTS

Introduction 1

Model Curriculum Overview. 1

OEIS-1 Organizational and End-user Information Systems Concepts 3

OEIS-2 End-user Technology Solutions. 6

OEIS-3 Organizational and End-user Information Systems Planning and Design 9

OEIS-4 Organizational and End-user Information Systems Implementation and Evaluation . 12

OEIS-5 Designing and Managing Organizational Training 14

OEIS-6 Communications Technologies 17

OEIS-7 Cases in Organizational and End-user Information Systems 20

OEIS-8 Information and Media Management 22

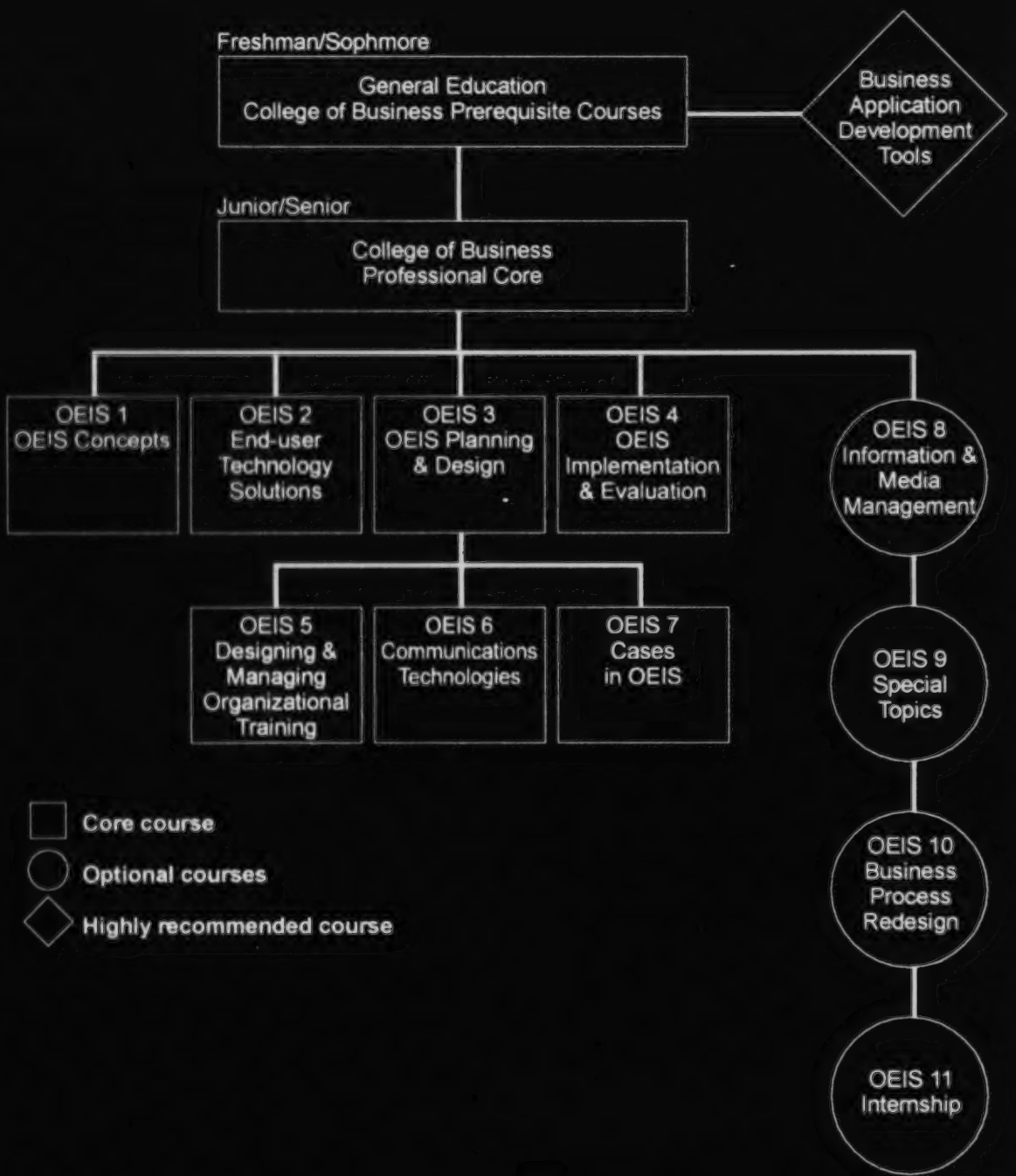
OEIS-9 Special Topics. 24

OEIS-10 Business Process Redesign 26

OEIS-11 Internship 28

Acknowledgments. 29

Organizational & End-user Information Systems (OEIS) Curriculum Model


Freshman/Sophmore
General Education
College of Business Prerequisite Courses
Business Application Development Tools
Junior/Senior
College of Business Professional Core
OEIS 1 OEIS Concepts
OEIS 2 End-user Technology Solutions
OEIS 3 OEIS Planning & Design
OEIS 4 OEIS Implementation & Evaluation
OEIS 5 Designing & Managing Organizational Training
OEIS 6 Communications Technologies
OEIS 7 Cases in OEIS
OEIS 8 Information & Media Management
OEIS 9 Special Topics
OEIS 10 Business Process Redesign
OEIS 11 Internship
Core course
Optional courses
Highly recommended course

ORGANIZATIONAL AND END-USER INFORMATION SYSTEMS (OEIS) MODEL CURRICULUM

Introduction

Organizational and end-user information systems (OEIS) is defined as the application of information technologies to support business processes and maximize employee performance. The objective of OEIS is to improve overall organizational effectiveness in direct support of business goals and objectives. Traditionally, OEIS made it possible to eliminate routine tasks and improve processes. Today, OEIS is geared to support problem analysis, decision making, communicating, and competing in the global marketplace. OEIS emphasizes the individual, group, and organizational side of the information revolution. OEIS deals with the knowledge, skills, and attitudes required of a professional who applies information technology to support workplace performance at all organizational levels.

Model Curriculum Overview

The OEIS Model Curriculum is designed to prepare graduates of four-year collegiate programs for entry-level positions that involve the analysis, design, implementation, and evaluation of information technologies. It should provide the foundation essential for progress in an information systems career path. Graduates are prepared to:

- analyze the needs of employees in a variety of business functions and recommend information systems solutions to improve performance
- assess the need for, design, implement, and evaluate information systems for the desktop computing environment
- assess the need for, design, implement, and evaluate training programs for non-technical personnel (end-users)
- assess the need for, design, implement, and evaluate online help, reference systems, and user documentation
- assess the need for, design, implement, and evaluate networks
- assess the need for, design, implement, and evaluate software solutions
- select and apply project management methodologies

While technology and business needs will change, the OEIS Curriculum is a flexible model, and will continually need to be (re)designed to match the needs of the changing market place; in general, however, graduates will be prepared for careers in areas related to:

microcomputers
local area networks
desktop computing
end-user information systems
information centers
end-user training
system documentation
online help and reference systems
user interface design
multimedia/interactive media
systems analysis and design
work process redesign and workflow

The OEIS Curriculum is designed for a four-year college and best fits in a school of business where students have a liberal arts foundation and study the core business curriculum. However, it may be effectively implemented in other schools (for example, education, computer science, technical studies) where the business common body of knowledge (accounting, economics, marketing, management, business law, business communications, and statistics) is included. In addition, skills in using a business application development language is highly recommended. Interpersonal skills, teamwork, communications skills, and ethical considerations are developed and practiced across the entire curriculum.

Stressing that a model curriculum must be flexible, courses and their titles are meant only to provide casings for competencies and instructional modules. The curriculum is presented in a framework of modules within semester courses. In actual implementation, it is expected that modules (groupings of course content) will be "mixed and matched" to fit other time frames (e.g., quarters or 1 or 2 credit courses) and course goals. Such alterations are considered consistent with the intent of this model. Seven core courses contain the competencies that are considered vital. The optional courses are suggestions for more in-depth work in specialty areas and/or field experiences. Adopting institutions should customize the model to meet the needs of their students and the mission of their schools. The figure on the next page graphically depicts the OEIS Model Curriculum and specific course descriptions follow.

OEIS-1 Organizational and End-user Information System Concepts

Course Description

An overview of organizational and end-user information systems (OEIS)–technologies, business processes, and worker performance. This course emphasizes methods used to plan for and implement information technologies in the workplace. Advances in information systems hardware and software and appropriate applications are discussed. Emphasis is on understanding end-user needs and how to select or design systems to address them. Workflow and systems analysis methodology, work (re)design, organizational change, systems implementation, and management issues are covered. Basic computer literacy is assumed.

Course Outcomes

Upon completion of this course, students should be able to:

- Identify OEIS technologies and differentiate the types of systems skills required to develop and implement OEIS in comparison to transaction processing systems
- Explain what a system is and how systems concepts apply to the planning, design and implementation of information systems in the office environment
- Cite examples of specific business needs and how information technologies can be used to address them
- Describe characteristics of office work environments and the impact of information technology on work performance
- Identify human factors issues associated with the use of OEIS technologies
- Define business process redesign and describe how enterprises are using it in conjunction with information technologies to improve business results
- Defend the value of system methodology showing how it is applied to the analysis and design of organizational and end-user information systems
- Summarize the role of training and support in OEIS implementation and describe approaches to meeting these needs
- Identify organizational and management issues related to the use of technology in the workplace and explain how enterprises can address them
- Find information regarding end-user technologies in the trade press, journals, and other reference sources

Course Approach

This course is designed to provide current thinking about information systems and the changing role of systems analysts, managers, and end-users with regard to its use, planning, implementation, and management at the desktop. To provide appropriate background and a solid foundation of understanding, instructors may find it helpful to arrange tours , bring experienced business people into the classroom, and /or arrange appropriate demonstrations of technology. Methods of instruction could include lectures, guest interviews, videos, and selected cases. Students participate in all class discussions by sharing experiences and commenting on assigned readings. Hands-on experience with technology could be included.

Although a basic text should be used for a foundation, students should also use and analyze information available in appropriate trade journals, videos, and other reference sources. Field and library-based research projects are recommended. Oral and written reports could help to develop necessary communication skills.

Course Content

1. Overview of systems concepts and the current status of end-user and networking technologies (10%) Skill level 1

Material covered: Overview of current directions in OEIS technologies, the impact of information technology on worker performance, and foundations for understanding office work environments. Introduction to basic systems concepts. Concepts of automated support in comparison to traditional office/administrative support. How OEIS fits into the typical enterprise information systems organization and how OEIS differ from transaction processing systems. Career opportunities.

2. Identifying business applications (30%) Skill level 1

Material covered: Improving workplace performance and support ing core business processes. Understanding requirements of the workplace and selecting appropriate hardware and software to meet performance needs. Applying technology to support knowledge workers in a wide variety of enterprises, including managerial, professional, technical, and administrative positions.

3. Workplace performance and productivity (20%) Skill level 1

Material covered: The impact of information technology on work performance; organizational and behavioral issues related to the introduction of new technologies. Topics include business process redesign, job design, organizational change, and human factors.

4. Planning and implementing OEIS (20%) Skill level 1

Material covered: Concepts, methodologies, and tools to assess how work is currently accomplished; the design of new systems to improve business processes. Implementation and evaluation strategies for new systems, and managing end-user computing. Adoption, infusion and assimilation of technology and organizational innovation. Introduction to project management.

Course Content (cont.)

5. OEIS training and support (10%) Skill level 1
Material covered: Important issues for effectively using computers in the workplace. Theoretical foundations and practical approaches to training and providing on-going support for systems users. Assessment of performance requirements, instructional design, implementation, and evaluation of training programs.

6. Organizational and managerial issues (10%) Skill level 1

Material covered: Management of computers in the workplace from a business perspective. Productive use of technology, establishing policies for end-user computing, controlling access to information, protecting the integrity and confidentiality of data, and legal issues.

Resources should include a basic text plus current trade journals and publications. Because this is such a fast-paced field, instructors must keep up to date with the best resources and arrange for their availability for students. This will pose a constant challenge as new resources become available and other are outdated.

Resources

Ray, Charles M., Janet J. Palmer, and Amy Wohl, *Office Automation: A Systems Approach*., Cincinnati: South-Western Publishing Co., 1994. (OSRA endorsed text)

Regan, Elizabeth A., and O'Connor, Bridget N., *End-user Information Systems: Perspectives for Managers and Information Systems Professionals*, New York: Prentice Hall/Macmillan Publishing Company, 1994.

Boone, Mary, *Leadership and the Computer*, copyright 1991, N. Dean Meyer and Associates, Inc., Roseville, CA: Prima Publishing, 1991.

Meyer, N. Dean, and Boone, Mary, *The Information Edge*, copyright 1987, 1989, N. Dean Meyer and Associates, Homewood, IL: Business One, 1987.

Vendor videos demonstrating technologies.
Periodicals:

- *Datamation*
- *Infosystems*
- *InformationWeek*
- *InfoWorld*
- *Modern Office Technology*
- *Network World*
- *Journal of Information & Image Management*
- *PC Week*
- *PC World*
- *Personal Computing*
- *Software Magazine (for Managers of Corporate Software)*
- *The Office*
- *Wall Street and Technology*

OEIS-2 End-user Technology Solutions

Course Description

This course provides a comprehensive overview of technology solutions for the organizational and end-user environment, including software packages, operating systems, and hardware considerations. Students will analyze, select, and evaluate computer software and hardware to address business needs. The course emphasizes the development of business applications using software packages (word processing, spreadsheets, databases, presentation graphics, project management, and desktop publishing and their accompanying documentation and help-screens). Prerequisites: computer literacy; demonstrated skill in using application software.

Course Outcomes

Upon completion of this course, students should be able to:

- Distinguish among various end-user technical environments found in business enterprises.
- Design specific information systems applications to address business needs.
- Use documentation, help-screens, and other instructional materials in learning new software applications.
- Establish criteria for the evaluation and selection of computer hardware components, operating systems, and software packages.
- Apply information systems to new opportunities for end-users in the workplace.
- Evaluate software packages and select the most appropriate alternative for specified business situations.
- Write a report defending a software recommendation and present it orally.

Course Approach

This course could take a student-centered approach, emphasizing the application of OEIS technologies to address business needs. The instructor could identify real or simulated business needs and have students work both individually and in teams to solve them. Students could prepare formal reports describing the business need and how the OEIS solution addressed it, and present the report orally in class.

Students will need access to computers to complete assignments. Ideally, instructor and class would have access to some type of computer laboratory where students could actually install operating systems and software applications. An assortment of computer software for hands-on work in the computer laboratory is needed. Ideally, students would also have access to an assortment of hardware including notebook computers, facsimile equipment, and printers.

Course Approach (cont.)

Course Content

Class sessions could include vendor or instructor-led demonstrations of new software products. Students could visit local sites, touring facilities and interviewing end-users about their use of systems in their daily work. Guest speakers could provide corporate or industry perspectives on software applications--development, use, and evaluation.

1. Survey and review of the technical environment (10%) Skill level 2

Material covered: commonly used *software* packages and their range of support in organizational and end-user environments, including word processing, desktop publishing, spreadsheets, databases, presentation graphics, project management, and communications software; computer *hardware* components and operating systems, LANs and WANs.

2. Defining and addressing business needs (20%) Skill level 2

Material covered: Interviewing users; articulating business needs; matching identified needs with appropriate tools.

3. Evaluating and selecting software and hardware (20%) Skill level 3

Material covered: criteria for evaluating software and hardware components; decision matrices.

4. Software installation (10%) Skill level 3

Material covered: the use of vendor documentation and help screens; following installation procedures for particular hardware and software following manufacturer's instructions on both a single computer and on a network; strategies for technical problem solving and trouble-shooting techniques; the development of procedures manual to solve specific end-user problems.

5. Developing business applications using software packages (40%) Skill level 3

Material covered: understanding and using vendor documentation and help screens; actual development of business applications (solutions) using appropriate software packages to address specified business needs or situations.

Resources

Textbooks could range from a relatively theoretical book to help students with the conceptual basis of the course to a strong applications-based text that may include generic I nstructions on the basic software packages and include the type of assignments mentioned previously. Some possibilities include:

Groneman, Nancy, and Meroney, John, *Information Systems Applications, Evaluation, and Selection*, Cincinnati: South-Western Publishing Company, 1991. (OSRA endorsed text)

Knosrowpour, Mehdi, *Microcomputer Systems Applications: A Hands-On Managerial Approach*, Harrisburg, PA: Idea Group Publishing, 1993.

Lkhosrowpour, Medjo, *Micro-Based Information Systems: Development and Management*, Harrisburg, PA: Idea Group Publishing, 1993.

Meyer, N. Dean, and Boone, Mary, *The Information Edge*, Business One, 1987, 1989.

OEIS-3 Organizational and End-user Information Systems Planning and Design

Course Description

This course covers the planning stage of organizational and end-user information systems development with particular emphasis upon employee and work group interaction. The ability to define and solve business end-user related systems problems is emphasized. Problem recognition skills are stressed as well as analysis of organizational end-user information systems through a group field-based project. A systems design is completed by the students with special attention given to inter-organizational goals. A "systems" mode of thinking concerning organizational issues is emphasized throughout the course. Prerequisite: OEIS-1 OEIS Concepts

Course Outcomes

Upon completion of this course, students should be able to:

- understand the value and application of systems thinking in the planning and design of organizational end-user information systems
- apply project management methodology to the planning and design of a simple end-user information system
    - define the scope of a project
    - define project objectives
    - identify and gather needed information
    - select the tools, tactics, and activities (including CASE tools) required to develop an end-user information system
    - select or develop a solution
- synthesize end-user systems study results
- prepare a project proposal and discuss it in an oral presentation

Course Approach

This course is designed to provide students with theoretical foundations and practical experience in planning and designing organizational and end-user information systems. Students learn to standard project methodology and systems concepts. They develop assessment tools, and collect and analyze data in an actual field project. The conceptual foundations include change management and job redesign. Students could present the results of their studies in oral presentations followed by open class discussions, and where necessary, modify their results. Study teams and work group methods could be used in this course both as learning and project completion techniques. Work groups should prepare a final written report of their field project.

Course Content

1. Organizational and End-user Information Systems (OEIS) and Organizational Relationships (20% of course) Skill levels 1 and 2

Material covered: Systems thinking and its value in the planning and designing of an end-user information system; discussion of the value of cultural influences and diversity; strategic planning to include the role of the mission statement, critical success factors, and systems objectives; an examination of change management, functional relationships of the organization and organizational structure employed in accomplishing the goals of the business enterprise.

2. Basic End-user Structure and Work Groups (10% of course) Skill level 2

Material covered: End-user structures and groups/teams, job (re)design considerations; analysis of intergroup and interdepartmental relationships (stresses the interconnectedness of the business organization as a system).

3. Project Methodology for OEIS (30% of course) Skill level 2

Material covered: Defining the scope of the project; identifying stakeholders; defining the objectives of the system; measurement of productivity and tangible benefits vs. soft system costs; assembling a project team; documenting the current system; introduction to structured analysis and related techniques; internal development; request for proposals; analysis of system requirements; selecting or developing solutions; design considerations.

4. Planning Tools Tactics, and Activities (30% of course) Skill levels 2 & 3

Material covered: The construction of data collection instruments such as interview guides, questionnaires, observation guides, time or document log, and work sampling); use of CASE tools, business processing reengineering concepts; data collection and evaluation, use of flow charts and data flow diagrams; group field study (OEIS course project).

5. Synthesizing the OEIS Study Results (10% of course) Skill levels 2 & 3

Material covered: Comparison of system requirements to departmental, divisional, and organizational needs; presentation of results of systems project (oral presentation and written report recommending system design to meet organizational needs).

Resources

References include major systems and data processing journals as well as trade magazines describing some of the latest technology. Periodicals might include:

Datamation
Infosystems
Journal of Systems Management
Management Technology

Resources (cont.)

MIS Week
Modern Office Technology
The Home Office
The Office

Recommended textbookss include:

Amadio, William., *Systems Development: A Practical Approach*, Santa Cruz, CA: Mitchell Publishing, Inc., 1993.

Eliason, Alan L., *Systems Development: Analysis, Design, and Implementation*, Scott, Foresman/Little, Glenview, IL: Brown Higher Education, 1993.

Hershey, Gerald, and Kizzier, Donna with Joel D. Levy, Robert A. Miller, and Amy D. Wohl, *Planning and Implementing End-user Information Systems*, Cincinnati: South-Western Publishing Company, 1992. (OSRA endorsed text)

Kendall, Kenneth E., and Kendall Julie E., *Systems Analysis and Design*, Englewood Cliffs, NJ: Prentice Hall Publishing Company, 1992.

Regan, Elizabeth A., & O'Connor, Bridget N., *End-user Information Systems: Perspectives for Managers and Information Systems Professionals*, New York: Prentice-Hall/Macmillan Publishing Company, 1994.

Senn, James A., *Analysis and Design of Information Systems*, New York: McGraw-Hill Publishing Company, 1993.

Whitten, J., Bentley, L., & Barlow, V. *Systems Analysis and Design Methods*, Mitchell Publishing Company, Santa Cruz, CA, 1994.

Software productivity tools might include:

Lotus Freelance
Harvard Graphics
Harvard Project Manager
Microsoft PowerPoint
FlowChart 3
Microsoft Access
Paradox for Windows
Excelerator (Index Technologies)
Design Aid (Nastec)
Information Engineering Workbench (Knowledge Ware)
Analyst/Designer Tools (Yourdon)

OEIS-4 Organizational and End-user Information Systems Implementation and Evaluation

Course Description

This course concentrates on the theory and practice of organizational and end-user information systems implementation where OEIS tools are to be integrated into the work environment. Following standard project methodology, this course investigates implementation and evaluation issues building on skills learned in OEIS 1, 2, and 3. In addition to the study of integration of hardware/software into the work environment, attention will be given to various organizational development factors such as applying planned change strategies (including addressing resistance to change) and human factors such as workplace ergonomics. Additional emphasis will be placed on evaluating results. Prerequisites: OEIS 1, 2, and 3.

Course Outcomes

Upon completion of this course, students should be able to:

- Apply theories that relate to planned technological change.
- Discuss current theories that relate to resistance to change.
- Suggest strategies for technology implementation.
- Suggest strategies for assessing the effectiveness of new technologies.
- Identify facility changes that must be considered in preparing a site for new technologies.

Course Approach

This course is ideally an extension of OEIS-2. The results from the planning course could become the input for this course, whether case studies or field-based projects are used. A case study or field-based project would require client interaction (simulated in the instance of a case) and preparation of a development and implementation plan. The development of training materials could also be part of course work. Ideally, students would orally defend any written plan they develop. Study teams and team methods would be appropriate, as both learning and project completion methods. Enriching the classroom environment could be guest speakers involved in the implementation and evaluation of new systems, and visits to selected business sites where change recently took place. A computer simulation such as GamePlan (see the Resources section) is recommended.

Course Content

1. Planned Organizational Change (20%) Skill level 2

Material covered: Leavitt's Systems Model of Change; Lewin's Three Phases of Change; Rogers' Diffusion of Innovation Theory; Coates' OTA model of technological change; reasons for employees resistance to change; reasons for organizational resistance to change.

2. Planning for Implementation (50%) Skill level 2

Material covered: Application of project methodology; physical and systems conversion plans; office and workspace ergonomics; developing and testing implementation plans, including training; pilot installations; security measures; implementation of end-user training; requests for proposals; documentation.

3. Evaluation Plans (30%) Skill levels 1 and 2

Material covered: Determining who should evaluate, what to evaluate, and when to evaluate; developing and using evaluation methods; report formats; modifying systems; matching outcomes to identified objectives.

Resources

Amadio, W., *Systems Development: A Practical Approach*, Santa Cruz: Mitchell Publishing Co., 1993.

Dalziel, M.M. and Schoonover, S.C., *Changing Ways: A Practical Tool for Implementing Change Within Organizations*, New York: AMACOM (a division of American Management Association), 1988.

Hershey, Gerald, and Kizzier, Donna with Joel D. Levy, Robert A. Miller, and Amy D. Wohl, *Planning and Implementing End-user Information Systems*, Cincinnati: South-Western Publishing Company, 1992. (OSRA endorsed text)

N. Dean Meyer and Associates, *GamePlan*, 638 Danbury Road, Suite D, Ridgefield, CT 06877 (203) 431-0029. (computer simulation)

Regan, Elizabeth. A. and O'Connor, Bridget N., *End-user Information Systems: Perspectives for Managers and Information Systems Professionals*, New York: Prentice Hall/Macmillan Publishing Co., 1994.

Rogers, E.M. *Diffusion of Innovations*, 4th edition, New York: Macmillan, 1995.

Wohl, Amy D. and Hunt, C. Steven, *Managing Integrated Business Systems: A Case Approach*, Cincinnati: South-Western Publishing Company, 1991.

OEIS- 5 Designing and Managing Organizational Training

Course Description

This course could be designed with the teacher functioning as a facilitator rather than as a lecturer. The class itself could serve as a learning laboratory where a variety of learning strategies are applied. The students would be encouraged to enter into discussions and present some of the concepts identified. The development of a learning module for an end-user application is one focus of this course. Other assignments would give the students an opportunity to interview local trainers, assess software tutorials and coaches, demonstrate live instructional strategies, and develop mediated instructional materials. Critical reviews of appropriate articles in current training periodicals and journals are suggested. Attendance at and participation in meetings of professional trainers' groups, such as the American Society for Training and Development (ASTD), should be encouraged. The local ASTD Chapter can also serve as a resource for speakers and tours of training facilities. Prerequisites: OEIS 1-4. Junior or senior level standing.

Course Outcomes

Upon completion of this course, students should be able to

- describe organizing structures for the training function
- discuss characteristics of adult learners
- compare cognitive science and behavioralism as foundations for training program development
- design needs assessment tools
- design and deliver a training program to match identified needs
- design evaluation tools
- present a training proposal orally
- assess on-line help and reference systems
- demonstrate group facilitation skills
- prepare, write, and assess effective documentation

Course Approach

Application of theories of adult learning and instructional development to the design, delivery and evaluation of training for organizational and end-user information systems. Topics include needs assessment; instructional design and strategy; live and mediated instruction; implementation management, evaluation and follow up methods; and evaluation of training strategies.

Course Content

1. The Role of Training in Organizations (10%) Skill level 2

Material covered: Overview of the organization's role in training and development; emerging trends in training and development; careers in training and development; training needs assessment, training program design, implementation, and evaluation; the role of training as a technology implementation strategy and the trainer as a change agent.

2. Analyzing Training Needs (20%) Skill levels 2 & 3

Material covered: identifying, developing, and using appropriate needs analysis tools such as observation guides, interview guides, and questionnaires to determe learning needs; writing learning objectives; group facilitation skills.

3. Designing Successful Training Programs (20%) Skill levels 2 & 3

Material covered: Principles of adult learning theory, cognitive science, and behaviorism; the design team; program development issues; the pilot test; developing a leader's guide.

4. Implementing Successful Training Programs (20%) Skill levels 2 & 3

Material covered: learners resistance to change; individual learning and support strategies; group learning and support strategies; selecting delivery systems; live versus mediated methods; performance support systems--data bases, hypertext, on-line help, expert systems and the like.

5. Evaluating Training Programs (15%) Skill level 2

Material covered: Linking training objectives to evaluation strategies--development and use of instruments and approaches to determine learners' reaction to training efforts (including instructional strategies and materials); their learning; the transferability of acquired skills to the job, assessing training's organizational impact; feedback techniques; program improvement; evaluating live and mediated instruction.

6. Additional Training Activities (15%) Skill levels 2 and 3

Material covered: development of training proposal, preparation of effective written documentation; oral presentation skills; design of on-line help and reference systems and other job aids; training administration.

Resources

A wealth of information is available on general training topics and computer-related training. Periodicals in organizational and end-user information systems and training are recommended as supplementary reading. Membership in the American Society of Training and Development (ASTD) will yield a number of valuable resources.

Heron, John, *The Facilitators' Handbook*, New York: Nichols Publishing, 1989.

Laird, Dugan, *Approaches to Training and Development*, 2nd ed., Reading, MA: Addison Wesley, 1985.

Resources (cont.)

O'Connor, Bridget N., Bronner, Michael, and Delaney, Chester, *Training for Organizations*, Cincinnati: South-Western Publishing Company, 1996. (OSRA endorsed text)

Powers, Robert, *Instructor Excellence*, San Francisco, CA: Jossey-Bass Publishers, 1992.

Reynolds, Angus, and Anderson, Ronald, *Selecting and Developing Media for Instruction*, 3rd ed., New York: Van Nostrum Reinhold, 1992.

Sredl, Henry J. and Rothwell, William J., *The ASTD Reference Guide to Professional Training Roles and Competencies* (Vols. I and II), New York: Random House Professional Business Publications, 1987.

OEIS-6 Communications Technologies

Course Description

This course provides a technical overview of electronic communication systems including a theoretical framework, and hands-on experience with networking technology.

Course Outcomes

Upon completion of this course, students will be able to:

- Demonstrate a theoretical understanding of telecommunications and telecommunications jargon
- Select telecommunication solutions
- Demonstrate effective LAN management
- Demonstrate effective use of on-line telecommunication services
- Determine effective use of telecommunication technology with video and other technologies
- Determine effective use of emerging communication technologies and their applications

Course Approach

This course is designed to give students an overview of electronic communications technologies including a strong foundation in local area network (LAN) management. Conceptual components of the course will be taught through lecture and discussion formats. The networking component will consist of lecture, discussion and hands-on experience.

Access to a computer lab is desirable for students to complete activities such as: accessing on-line information services, installing network cards and cables, and establishing, maintaining and managing a local area network. A separate computer laboratory is recommended for this course, therefore avoiding the problem of students experimenting with a network needed for other courses. However, if access to a separate computer laboratory is not possible, other options are suggested in Item 3 of the Content/Modules section.

Course Content

1. Communications Technologies Concepts (20%) Skill Level 2

Material covered: An introduction to the fundamentals, evolution, and need for telecommunications. Introduction to telecommunication models and theories, transmission equipment, signals, transmission rates, topologies, cabling systems, circuits, protocols, and telephony.

2. Communications Technologies Solutions (10%) Skill Level 2

Material covered: Determining appropriate use and application of communication models, electronic transmission equipment, telephony, and other communication systems.

Course Content (cont.)

3. LAN Management (45%) Skill Level 3

Material covered: An introduction and application of theoretical and practical hands-on concepts, methodologies, and tools needed to effectively support and manage a local area network. Topics will include, but not be limited to: designing and creating directory structures, working with drive pointers, establishing system security, installing software, creating users and groups including login scripts, working with file and system utilities, and establishing network printing.

(Option 1) Recommended

A telecommunications computer laboratory with a local area network (LAN) is recommended. This will allow students to install network cards, and cables, connect workstations, install networking software, and manage networking functions. This LAN should be separate from the school LAN to eliminate the possibility of students accidentally corrupting the school networking environment.

(Option 2)

If a separate computer lab is not possible an alternative approach for the networking unit would be to acquire a Computer Based Training (CBT) package. This software can be acquired through network software vendors.

(Option 3)

If a separate computer lab is not feasible and CBT software cannot be acquired then it may be possible to have networking professionals visit the classroom. In addition, outside readings, field trips, or short internships would give students an understanding of the requirements of networking professionals.

4. Use of On-line Information Sources (10%) Skill Level 3

Material covered: Integrated digital network services. Effective use of Internet, as well as list servers, and on-line information interfaces such as Gopher, Cello, Netscape, or Mosaic.

5. Use of telecommunication and video technology (10%) Skill Level 3

Material covered: Teleconferencing, videoconferencing, voice mail, and voice/data network management.

6. Use of emerging technologies and their applications (5%) Skill Level 3

Material covered: Evaluation of the effective use of new and emerging technologies in telecommunications as it relates to the end-user environment, i.e. (merging of telephone and cable systems, wireless services, cellular PC technology and satellite services).

Resources

Silver, G.A. and Silver, M.L., *Data Communications For Business*, Danvers, MA: Boyd and Fraser Publishing Co., 1994.

Keen, P. G. and Cummings, J. M., *Networks In Action*, Belmont, CA: Wadsworth Inc., 1994.

Simpson, T. L., *Hands-On Netware: A Guide to Novell 3.11/3.12 with Projects*, Cambridge, MA: Course Technology, Inc., 1994.

Shipley, C., *How To Connect*, Emeryville, CA: Ziff-Davis Press, 1993.

Dvorak, J. C. and Anis N., *Dvorak's Guide to PC Telecommunications*, Berkeley, CA: Osborne McGraw-Hill Inc., 1992.

OEIS-7 Cases in Organizational and End-user Information Systems

Course Description

A capstone course that integrates through case studies or other comprehensive capstone experience the application of concepts, theories, and skills associated with end-user information systems as they contribute to the solution of business problems and the development or redesign of the solution of business problems and the development or redesign of business processes. The course is normally taken in the student's last term before graduation. Prerequisites: OEIS 1-4

Course Outcomes

Upon completion of this course, students will be able to:

- Articulate the relationships among end-user information systems, organization-wide information systems, and the business systems for which these systems are components.
- Analyze comprehensive cases describing organizations, identify problems or decisions associated with end-user information systems, and plan activities for solving the problems or making decisions.
- Conduct end-user information systems studies; gather, analyze and organize data related to identified problems and recommend solutions to identified problems.
- Report the results of problem solving and decision making activity-write reports, make oral presentations, design supporting media (presentation graphics, printed graphics, statistical reports, etc).
- Perform effectively as a team member in problem solving activity.

Course Approach

The introductory portions of this course may be devoted to lectures, discussions, and class projects that review basic management concepts, integrate the content of previous courses, and establish end-user information systems as component of organization-wide information systems and business processes. An early segment should be devoted to a thorough orientation to case study and other methodologies to be used, including a practice case analysis with a written report. If other learning experiences (computer simulations, group decision support systems, field studies) are to be used, they should be introduced.

While comprehensive cases and computer simulations are likely to be the primary sources of material for the course, the course may include real-world observation, data gathering, problem analysis and problem solution. Such experiences should be comprehensive in their design so that the impact of end-used information systems and technologies upon the entire organization and the relationships among end-user information systems, management information systems, and business process are emphasized.

Course Content

The course is primarily a problem analysis course. Both individual and team activities should be included. Both written and oral presentations of case solutions should be required. Case analyses should involve a variety of arrangements (whole class/same case, teams/same case, teams/ different cases, and the like).

1. The Environment For Managing End-user Information Systems (20%) Skill level 2

Material covered: Framework for analyzing business systems and end-user information systems as components of business processes, identifying and evaluation business functions and business processes, developing end-user information systems as components of business processes, integrating end-user information systems with enterprise information systems. Models of organizational change, end-user technology support, and business process reengineering. Integrating human factors components and technology components of end-user information systems. Introduction to the case approach to classroom study--analyzing cases and reporting results including models for attacking cases analyses, expectations for required written and oral reporting, (i.e. reqests for proposals), practice cases, and preview software

2. Analyzing Problems- Technologies and Issues (30%) Skill level 3

Material covered: Cases involving implementation of technologies. Cases representing multinational and global operations. Cases representing human factors considerations and ergonomics. Cases that explore emerging technologies (document imaging, multimedia, group systems software, global information communication, virtual reality, human/machine interfaces) for supporting business processes and end-users

3. Analyzing Problems-Comprehensive (50%) Skill level 3

Material covered: Cases involving the role of end-user information systems as a component of organization-wide information systems technologies. Cases representing strategic planning and implementation of end-user information systems in the private sector, the public sector, and a variety of industry sizes and types. Cases that relate end-user information systems to organizational change, business process reengineering, corporate culture, competitive strategies, and end-user support

Resources

GamePlan, N. Dean Meyer and Associates, Inc. 638 Danbury Road, Suite D, Ridgefield, CT 06877 (203) 431-0029 (computer simulation)

Tapscott, D., *Paradigm Shift: The New Promise of Information Technology*, New York: McGraw Hill, 1993. (theory)

Wasserman, S., *Getting Down to Cases: Learning to Teach With Case Studies* New York: Teachers College Press, 1993. (the case method)

Wohl A. D. and Hunt, S., *Managing Integrated Business Systems: a Case Approach*, Cincinnati: South-Western Publishing Company, 1991.

OEIS-8 Information and Media Management

Course Description

This course provides a detailed treatment of information and media management. Media is defined as the information storage format, and includes paper, microcrecords, electronic, video, and other forms of information generation, recording, and storage. Students will develop an understanding of the information life cycle, information value, and how information serves as a critical organizational asset.

Course Outcomes

Upon completion of this course, students will be able to:

- Describe the variety and scope of information and media that are an integral part of contemporary organizations
- Discuss information resource management philosophies, practices, and tools
- Apply the information records life cycle to situations
- Discuss legal and ethical issues related to information management and retention
- List proprietary, legal, and tax issues related to information media
- Categorize back-up and disaster recovery systems and procedures
- Give examples of varying cultural conventions governing information management in a number of different societies

Course Approach

The introductory portions of this course may be devoted to lectures, discussions, and class projects that review basic information management concepts and establish information management as a component of business processes. In leading the discussion, the instructor could identify issues related to effective information flow and control, and the management of information within and between/among organizations. Case studies could be the basis for analysis and evaluation for discussion of information management in contemporary organizations.

Vendor presentations and demonstrations are recommended. The American Records Management Association (ARMA), both national and local, could recommend vendors and guest lecturers. Trade and professional publications can supplement basic texts. Selected articles from professional journals would provide students with problems and solutions in the professional workplace. Group- and individual course projects could be based either on cases or real life situations. Such analyses are considered an addition to students' portfolios of pre-professional experiences.

Course Content

1. The varieties and scope of information and media. (20%) Skill level 1

Material covered: Description and application of information, documents, and media; the information life cycle. The promises and limitations of various formats for information used in organizations, including paper, film, electronic, image, and encrypted materials.

2. The techniques and technologies for organizing and managing information resources (20%) Skill level 2

Material covered: The philosophy and description of information resource management, practices, and techniques. Organizing and managing information resources.

3. The information life cycle (20%) Skill levels 2 and 3

Material covered: Analysis of information and records from conception, execution, distribution, use, and storage. Record retrieval from various formats: original, paper, electronic, photographic, and optical. Developing schedules for records destruction. Legal, tax, and ethical considerations. Proprietary considerations.

4. Back up and disaster recovery systems (20%) Skill levels 2 and 3

Material covered: Automated back-up and retrieval systems; long term protection storage systems for records preservation.

5. Cultural considerations (20%) Skill level 2

Material covered: Global information management issues and how practices may vary in other nations. Legal, ethical, and proprietary considerations in multi-national organizations.

Resources

Journals:

Proceedings of the Annual ARMA Conference
Records Management Quarterly
Datamation
Managing Office Technology
Modern Office Technology
The Office

Gill, Suzanne, *File Management & Information Retrieval Systems: A Manual for Technicians and Managers*. 3rd Edition, Libs Unlimited, 1993.

Bikson, Tora K. and Frinking, E. J. *Preserving the Present: Toward Viable Electronic Records*, The Hague: Sdu Publishers, 1993. Also available as RAND reprint #RP-257. (RAND, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138)

Ricks, Betty R.; Swafford, Ann J.; and Gow, Kay F., *Information and Image Management: A Records Systems Approach*, Cincinnati: South-Western Publishing Company, 1992.

OEIS-9 Special Topics

Course Description

This course is the study of advanced concepts and issues relevant to OEIS. Content will vary according to the needs and interests of the students and the interests and expertise of the faculty. Selected topics should emphasize current technological advancements and OEIS management concerns. Prerequisites: Generally, students should have completed the core OEIS courses. Specific prerequisites should be established by the instructor(s) when the course is designed.

Course Outcomes

General outcomes provide students with up-to-date information on special contemporary topics. Specific outcomes will vary with the topics and modules selected.

Special contemporary topics of particular interest and value to the OEIS student are explored at various skill levels, depending on the topic. Using a student-oriented approach, the instructor may use special exhibits, conferences, speakers, or equipment available for a particular time period. Students may also take an active part in the course design by researching and presenting topics of interest.

Course Approach

This course may be taught in a highly condensed format, such as a workshop, or as part of the normal school year curriculum. Modules may be taught separately or related modules may be joined together. Team teaching is encouraged to maximize individual instructor expertise. This course may be offered for variable credit and may be repeatable, depending on the topics offered.

Course Content

The following modules are offered only as examples; they are not meant to be an exhaustive list of topics which may be included in the course. Modules are probably skill level 3.

1. Certification

Material covered: The course may be designed to prepare students to take a specific certification examination such as the certified administrative management (C.A.M.), certified network engineer (C.N.E.), or certified computer professional (C.C.P.) examinations.

2. Group Decision Support Systems

Material covered: The use of groupware for decision making and other group processes in instances where GDSS systems are available.

3. Alternative Applications Development

Material covered: The use of computer assisted system engineering (CASE) tools, prototyping, rapid application design, and joint application design. May include diverse topics such as object oriented technology and its impact on applications development.

Course Content (cont.)

4. Management Survival Skills

Material covered: The critical success skills needed for a new OEIS specialist, preferably taught by instructors with practical business experience. The course could emphasize problem solving skills for people-oriented problems, negotiating and facilitating skills, and team building skills.

5. OEIS and Society

Material covered: The business obligations and responsibilities to society and the community in which business functions. Could include health and safety issues, business ethics, and the impact of technology on society. Could also include gender issues such as the difference in how men and women communicate and manage, sexual harassment, job discrimination, and the like.

6. Human Factors Engineering (Ergonomics)

Material covered: Students analyze the physical components of a workplace that affect the worker: e.g., workstations, HVAC, lighting, spacial layout, noise, color schemes.

7. OEIS Project

Material covered: Students actually analyze, design, and build a working prototype of an OEIS to solve a real business problem. Students could elicit practical problems from local businesses and then prepare a working solution to those problems using technology.

Resources

Resources will vary with the topics of modules selected. However, every effort should be made to include the latest material available that is relevant to the subject matter. Other resources such as business practitioners and experts from other disciplines could be recruited for guest lecturers.

OEIS-10 Business Process Redesign

Course Description

This course presents concepts and methodology for business process redesign (BPR). Emphasis is placed on how information systems serve as enablers for business process redesign. Students will learn how to analyze business processes and redesign them for dramatic results. The course includes case studies that provide practical application of the concepts and methodologies. Prerequisite: OEIS 4 OEIS Implementation and Evaluation

Course Outcomes

Upon completion of this course, students should be able to:

- Define business process redesign and explain how business processes differ from business functions
- Demonstrate a working knowledge of the fundamental concepts and skills which managers and team members need to conduct a business process redesign project
- Map business processes
- Analyze business process workflows
- Given a specific business process, students will be able to apply reengineering concepts to redesign it to achieve stated objectives
- Make a presentation of a business processing analysis and recommendation
- Explain appropriate change management and implementation strategies for business process redesign

Course Content

1. Introduction to business process redesign concepts (10%) Skill level 2

Material covered: Definition of BPR, difference between processes and functions, basic reengineering concepts.

2. Technology as an enabler for business process redesign (20%) Skill levels 2 and 3

Material covered: How technology can change the rules by which enterprises operate. Methodologies for using technology to do new things as well as to transform things they are already doing.

3. Project management for BPR (15%) Skill levels 2 and 3

Material covered: Developing rationale and expectations; defining "stretch" goals. Identifying basic roles and responsibilities: leader, process owner, redesign team, steering committee. Creating a business process map. Prioritizing processes to be redesigned, creating a redesign plan, and developing a change management plan.

Course Content (cont.)

4. Analysis phase (15%) Skill level 3

Material covered: Understanding customer needs, analyzing customer satisfaction, identifying customer objectives for the process, value stream analysis. Scoping the process. Understanding the current process. Prioritizing analysis results for design.

5. Redesign phase (10%) Skill level 2

Material covered: Getting creative, shifting paradigms. Developing new rules and assumptions, designing the new core concept, and defining the enabling requirements. Finding and Implementing quick hits.

6. Development phase (10%) Skill level 2

Material covered: Design and construction; putting into place the organization, activities, resources, management systems and technology that the new process requires. Testing the new core concept and continuing to refine new procedures and methods. Moving the new core concept into a pilot (or laboratory) setting. Looking for initial benefits.

7. Implementation phase (20%) Skill level 2

Material covered: Creating an implementation plan. Rolling out the new process, training employees, managing change, and monitoring the results.

Course Approach

This course takes a holistic approach that combines systems discipline, analytical skills, technology know how, organizational development skills, and business knowledge to improve organizational performance. The course covers concepts, tools, techniques, methods, and skills needed to identify, analyze, and redesign business processes. Information technology is viewed as an enabler to change the way work is done in enterprises and dramatically improve business performance. Case studies of companies that have implemented business process redesign initiatives are recommended. Guest lecturers from the business community would provide excellent class enrichment.

Resources

Andrews, D., *Business Reengineering*, New York: Prentice-Hall, 1994.

Curid, C., *Computing Strategies for Reengineering Your Organization*, Prima Publishers, 1993.

Hammer, Michael, and Champy, James, *Reengineering the Corporation: A Manifesto for Business Revolution*, New York: Harper Business, 1993. ISBN 0-88730-640-3.

Regan, Elizabeth A., and O'Connor, Bridget N., *End-User Information Systems: Perspectives for Managers and Information Systems Professionals*, New York: Prentice Hall/Macmillan Publishing Company, 1994.

OEIS-11 Internship in OEIS

Course Description

This course is designed to provide the senior-level student an opportunity to assist with the planning and implementation of computing technologies in an approved on-campus site or an approved off-campus site. Students may perform information systems rainer/consultant and/or end-user support duties. Students will meet periodically with the instructor to discuss problems and issues relevant to the area of managing microcomputer information systems. Compensation may or may not be granted for the internship/practicum. Prerequisites: Senior standing in OEIS Concentration and prior permission of instructor

Course Outcomes

Upon completion of this course, students should be able to:

- Develop career goals and specific objectives in chosen profession.
- Establish an understanding of the role of employee and see how you fit into this role.
- Maintain a **written journal** of the experiences that surfaced in work-related activities during the term, citing specific experiences deal ng with problems (technical and/or organizational) , criticism, individual differences, and cultural biases. Discuss any rules, guidelines or policies of the company that are important to follow not only at the worksite but also in one's personal life.
- Compile an **Internship portfolio** that includes the following items: current resume, a piece of literature from the employing company, an organizational chart of the company or department, a picture of the physical setting, any diplomas or certificates earned, two letters of reference, examples of work such as a self-designed computer printout or a training manual.

Course Approach

An internship or cooperative work experience should be offered toward the end of the undergraduates' program of study. Supervised by a faculty member, this work experience provides an opportunity for students to gain practical experience in organizational and end-user information systems environments. Ideally, student interns will be assigned special projects or work as interns under the direction of professionals in the end-user information systems area. The nature of the internship should be outlined at the outset of the students' employment. No specific topics/modules are included, however, to provide a quality experiential learning arrangement, the following guidelines are suggested:

- Students should work a minimum of ten hours a week in an approved setting during the regular semester or a minimum of 20 hours a week during the summer term.

Course Approach (cont.)

- Students should work under the immediate supervision of a person who is familiar with the area of information technology, end-user computing support, training, microcomputing technology and/or other related information system areas.
- Periodic class meetings--on campus--should be scheduled for information exchange.

Each student should be evaluated by both the supervisor and the instructor during the semester in which s/he is enrolled. The performance evaluation should be based upon planned experiences, job responsibilities, expected results and an established measurement criteria.

Employing companies that provide practical experience related to the undergraduates' chosen profession in Organizational & End-User Information Systems.

Resources

Bronner, Michael., "Business and Education: The Sound of One Hand Clapping?" *Office Systems Research Journal*, Vol. 5, No. 1., 1986, pp. 37-40.

O'Connor Bridget N., and Thomas, Edward (Editors), Professional Practice Course Outline in *The Office Systems Research Association Model Curriculum for Office Systems*, Springfield, MO: OSRA, 1986, p. 30.

Portlock, M. J., *Cooperative Education Student Journal*, Kendall/Hunt Publishing Co., Dubuque, Iowa, pp. 13-45.

Yane, R., "Supervising Interns Effectively" *Nonprofit World*, July/August 1993, p. 34-35.

Focus Group Locations and Leaders

Members of the Curriculum Revision Group with the cooperation and support of local OSRA members, held focus group meetings in twelve locations during the winter of 1994-95. Focus group leaders invited representatives from business and academia to review and critique a draft of the model curriculum. The results of the focus group meetings were incorporated into the final version of the model in this report. The following list identifies the focus group leaders and locations.

Mary Ellen Adams, Indiana State University
Margaretta J. Caouette, Pace University
Roger Deveau, University of Massaschusetts, Dartmouth
Kay Durden, University of Tennessee, Martin
Faculty, Middle Tennessee State University
Faculty and Staff, Hong Kong Baptist University
Wanda Stitt-Gohdes, University of Georgia
Maxine Hart and Brenda Morris, Baylor University
C. Steven Hunt, Tennessee State University
Charles M. Lutz, Utah State University Utah State University
Heidi Perreault, Southwest Missouri State University
Elizabeth A. Regan, MassMutual Life Insurance Company

Special thanks to Kristan Ryan, Business Education Program, New York University, who prepared this document for publication. Also, a special thanks to C. Steven Hunt, Center of Excellence in Information Systems Engineering and Management at Tennessee State University, who designed the graphic depicting the curriculum framework and to Jake Smith, also of Tennessee State University, for the cover design.

Acknowledgments

The OSRA Curriculum Revision Group

Michael Bronner
New York University
Dept. of Administration, Leadership, and Technology
239 Greene St., Suite 300
New York, NY 10003
212 998-5486
bronner@is2.nyu.edu

Donna J. Cochrane
Bloomsburg University
BE&OA Sutliff Hall
Bloomsburg, PA 17815
717 389-4127

Margaretta J. Caouette
Pace University
CSIS-OIS Grad. Center
1 Martine Avenue
White Plains, NY 10606
914 422-4145
caouette@nyu.edu

Roger Deveau
University of Massachusetts--Dartmouth
College of Bus. and Ind.
Business Information Systems Program
N. Dartmouth, MA 02747
508 999-8424
rdeveau@umassd.edu

Robert E. Fidoten
REF Associates
118 Grayfriar Drive
Pittsburgh, PA 15215
412 963-8785

C. Steven Hunt
Tennessee State University
College of Business
MIS Box 139
330 10th Ave. N., Suite K
Nashville, TN 37203-3401
615 963-7024
shunt@coe.tnstate.edu

Marcia James
University of Wisconsin- Whitewater
BEOA Department
Whitewater, WI 53190
414 472-1322
jamesm@uww.vax.edu

Charles M. Lutz
Utah State University
BISE 3515
Logan, UT 84322-3515
801 797-2349
cml@cc.usu.edu

Dirk Mahling
University of Pittsburgh
Department of Information Science
749 SLIS
Pittsburgh, PA 15260
412 624-5144
mahling@icarus.lis.pitt.edu

Duane Moses
Southwest Missouri State University
901 S. National Avenue
Springfield, MO 65804

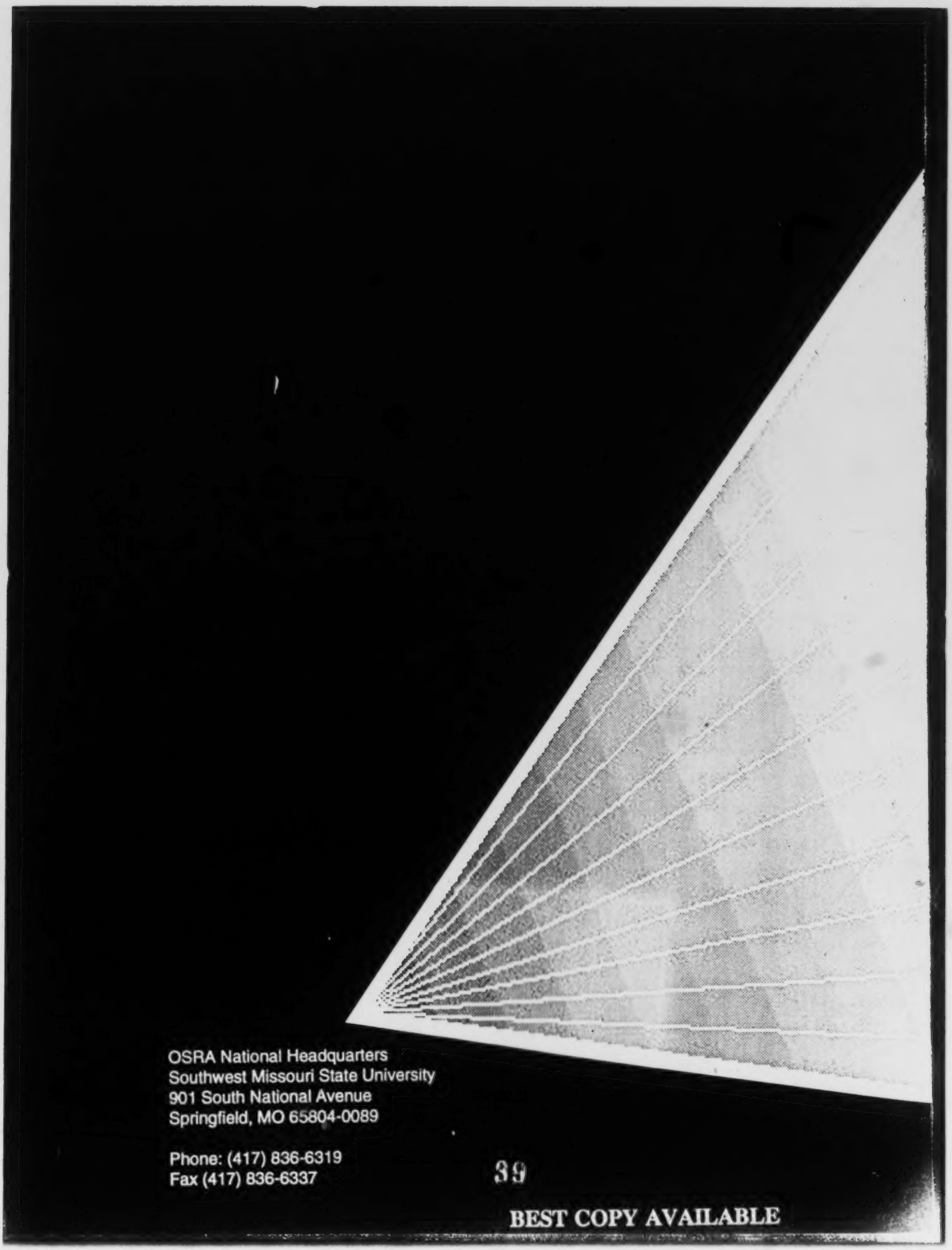
Bridget N. O'Connor
New York University
Dept. of Administration, Leadership, and Technology
239 Greene St. Suite 300
New York, NY 10003
212 998-5488
oconnorb@is2.nyu.edu

Sarah Dorando O'Donnell
Bellcore
PYA 2F 311
3 Corporate Place
Piscataway, NJ 08854
908 699-5468
sarahd@cc.bellcore.com

Charles M. Ray
Ball State University
College of Business
BEOA - WB203
Muncie, IN 47306-0355
317 285-5237

Elizabeth A. Regan
MassMutual Life Ins. Co.
1295 State Street
Springfield, MA 01111
413 744-4794

Susan S. Rehwaldt
Southern Illinois University
College of Technical Careers
Carbondale, IL 62901
618 453-7288



OSRA National Headquarters
Southwest Missouri State University
901 South National Avenue
Springfield, MO 65804-0089

Phone: (417) 836-6319
Fax (417) 836-6337

BEST COPY AVAILABLE